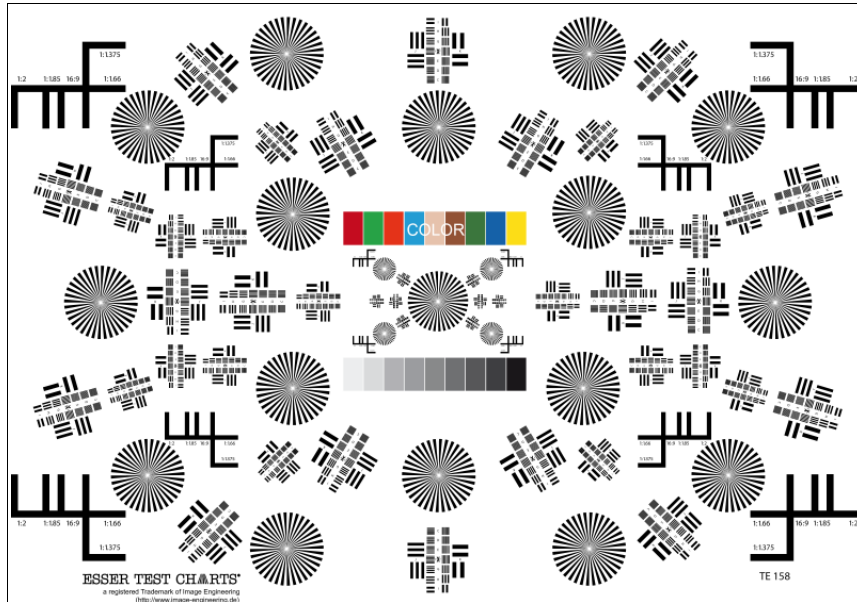# CINE TEST CHART

REFLECTANCE

The test chart is designed for evaluating the image quality of film cameras. It can be used for cameras of different formats. It has format markings for the following aspect ratios:

1:1.375	35mm
1:1.66	S16mm
16:9	PAL Plus / HDTV
1:1.85	
1:2	

There are markings for 3 different reductions:

related to 35 mm film 7.5x, 25x and 45x
related to S16 80.5x, 44.5x and 13.4x

The image mounted on a stable 10mm plastic plate consists of different test elements as described below:

1. 16 sector stars with 36 sectors and an diameter of 80mm and 4 sector stars of 25mm diameter. The sector sta rs are used for focussing the camera and simple visual appraisal of the lens tested.
2. Test elements (TE142) as usually used in testing resolving power. The line sets, two of each arranged at right angle are marked from C to K and graduated by factor √2. That means that every two steps the number of lines is divided by two. There are three different sizes of the test elements not only in accordance with the three different resolution scales but also to provide a higher range of possible resolution measurement. The resolutions according to the reduction scales and the field markings are given in the table below.
3. 9 testcolour patches to evaluate color reproduction of the film material. The color partly corresponds to those of the Macbeth ColorChecker.
4. A nine step linear gray scale (D = 0.2 - 1.8).

TE142 small		resolving power in line pairs / mm with reduction factor				
field	original	7.5x	25x	45x	13.4x	80.5x
C	8.3	62	208	375	112	671
D	5.9	44	147	265	79	473
E	4.2	31	104	188	56	336
F	3.0	22	73	133	40	238
G	2.1	16	52	94	28	168
H	1.5	11	37	66	20	118
I	1.0	7.5	26	47	14	84
J	0.75	5.6	19	33	10	60
K	0.5	4	13	23.5	7	42

TE142 middle		resolving power in line pairs / mm with reduction factor				
field	original		25x	45x		80.5x
C	2.7		68	122		219
D	1.9		48	87		155
E	1.4		34	61		109
F	1.0		24	43		78
G	0.7		17	31		55
H	0.5		12	22		39
I	0.34		8.5	15		27
J	0.24		6	11		19
K	0.17		4	8		14

TE142 large		resolving power in line pairs / mm with reduction factor				
field	original		25x	45x		80.5x
C	1.8		45	81		146
D	1.28		32	58		103
E	0.9		23	41		73
F	0.64		16	29		52
G	0.45		11	20		36
H	0.32		8	14		26
I	0.23		6	10		19
J	0.16		4	7		13
K	0.1		2	4		8